REMARKS/ARGUMENTS

Claims 1-17 are pending. Method claims 18-23 have been canceled without prejudice in view of Applicant's election to prosecute Claims 1-17 in response to a restriction requirement. Applicant reserves the right to file divisional applications or take such other action as may be appropriate to protect the invention(s) defined by non-elected Claims 18-23.

Applicant has amended the title of the invention to be consistent with the subject matter of remaining Claims 1-17.

Claim 11 was rejected as indefinite. Claims 1-17 were rejected as unpatentable over Forte in view of Antoon, Jr.

Summary of Claim Amendments

Independent Claims 1, 10, and 14 have been amended to clarify that the multilayer film is oxygen-permeable. The multilayer film is suitable for packaging oxygen-sensitive products such as fresh produce. As explained in the specification, some products such as fresh produce are best packaged in a film that limits oxygen infiltration into the package but yet is not completely impermeable to oxygen. Too much oxygen in the package leads to oxidation and microbial growth. Conversely, too little oxygen induces anaerobiosis in the foodstuff, causing spoilage and fermentation. The desired amount of oxygen in the package headspace is generally lower than the amount in ambient air, for example, 1% to 2% compared with about 23% oxygen in ambient air.

Among the objects of the invention is to provide a packaging film having a desired degree of oxygen permeability while also possessing adequate dimensional stability. As noted in the specification, films having acceptable stiffness and dimensional stability typically have lower gas permeability than desired.

The multilayer film as claimed in the amended claims is oxygen permeable. Consequently, each layer of the film must be oxygen permeable. The layers are arranged in

series and therefore the oxygen permeability of the multilayer film cannot be greater than that of the least oxygen-permeable layer of the film. In the claimed multilayer film, the intermediate microporous layer is formed from an oxygen-impermeable composition (see definition of "oxygen-impermeable composition" in the specification at p. 9, lines 18-28). However, the intermediate layer is oxygen permeable because of the microporosity imparted to it. In preferred embodiments of the invention, as recited in amended Claim 10 for example, the intermediate layer is formed from an *unfilled* oxygen-impermeable polymer composition (see definition of "unfilled" in the specification at p. 13, lines 21-23). The microporosity advantageously is created through use of a blowing agent.

Summary of Rejections Based on Forte and Antoon, Jr.

The Office Action asserted that Forte discloses a water vapor-permeable multilayer film having first and second outer layers C and an intermediate microporous layer B disposed between the outer layers. The Office Action stated that outer layers C are formed from heat-sealable compositions because they are disclosed as being thermoplastic and are in fact coextruded. It thus appears that the Office Action equates "thermoplastic" with "heat-sealable". The Office Action acknowledges that Forte fails to disclose the intermediate microporous layer as being formed from an oxygen impermeable composition.

However, the Office Action notes that Antoon, Jr. discloses a container comprising a film that is substantially impermeable to oxygen and highly permeable to water vapor, in the form of a silicone-coated microporous film. The Office Action asserts that it would have been obvious to one of ordinary skill in the art to use the silicone-coated microporous film of Antoon, Jr. as the intermediate microporous layer of Forte since the film is taught by Antoon, Jr. to be a water vapor permeable microporous film.

Response to Rejections

Applicant respectfully disagrees with the rejections. As an initial matter, even if the references were combined as suggested in the Office Action, the resulting multilayer film would

still not meet all of the limitations of the claims. Each of the independent claims requires the first and second outer layers to be formed of heat-sealable compositions and to be oxygen permeable. The outer layers C of Forte are described as being hydrophilic polymeric resins, including polyesters, polyamides, and grades of polyvinyl alcohol (i.e., PVOH) and ethyl vinyl alcohol (EVOH). None of these materials would be understood by persons of ordinary skill in the art as being heat-sealable compositions, even though they are thermoplastic. The term "heat-sealable composition" in the art is understood as being narrower than "thermoplastic composition". Indeed, when polyester, polyamide, PVOH, or EVOH is used in a packaging film that is to be heat sealed, a dedicated heat seal layer or coating typically is required in order to render the packaging film heat-sealable. This is particularly true when the polyester, polyamide, PVOH, or EVOH layer is laminated with one or more other layers of different polymer materials, because polyester, polyamide, PVOH, and EVOH have relatively high melting temperatures, typically significantly higher than that of other materials such as polyolefins. Thus, if a multilayer film having a polyester, polyamide, PVOH, or EVOH layer were heated to a temperature sufficient to cause melting of the polyester, polyamide, PVOH, or EVOH layer, the additional layer(s) of other materials would be melted as well, leading to a loss of integrity of the film.

In this regard, Forte discloses that the microporous layer B can comprise polyolefins. When combined with outer layers C of polyester, polyamide, PVOH, or EVOH, it is clear that the layers C are not intended to be, and would not function as, heat-sealable layers, for the reason noted above. Thus, Forte does not disclose outer layers of heat-sealable composition.

Additionally, Forte does not disclose outer layers that are oxygen permeable. As persons of ordinary skill would understand, the polymers listed by Forte for his outer layers C (polyesters, polyamides, grades of polyvinyl alcohol, and ethyl vinyl alcohol) have extremely low oxygen permeability, and indeed are frequently employed as effective oxygen barriers. For practical purposes, therefore, they must be regarded as substantially oxygen *impermeable*, in contrast to the outer layers as claimed.

Thus, even if Forte and Antoon, Jr. were combined as suggested in the Office Action, the resulting multilayer film would not have outer layers that are oxygen permeable and that are formed of heat-sealable compositions.

Furthermore, the silicone-coated microporous film of Antoon, Jr. is specifically described as being gas *impermeable*. The silicone-coated microporous film is listed as one of several alternatives to the preferred cellophane material for Antoon's water vapor-permeable film (col. 3, lines 14-17). Antoon specifies that the vapor-permeable cellophane or silicone-coated microporous film must be *impermeable to gases such as O_2 and CO_2* (col. 2, lines 35-37).

Therefore, if the silicone-coated microporous film disclosed by Antoon were substituted for the intermediate layer B of Forte's multilayer film, the resulting film would not correspond to what is currently claimed. In particular, the intermediate layer would be oxygen *impermeable*, in contrast to the claimed oxygen-permeable intermediate layer of Claims 1, 10, and 14.

It should be noted that Antoon, Jr. does disclose a gas-permeable film, in addition to the gas-impermeable, vapor-permeable cellophane film. The package described in Antoon, Jr. employs one panel of the gas-permeable film for controlling O_2 and CO_2 levels in the package, and another panel of the gas-impermeable, vapor-permeable cellophane film for controlling moisture level in the package. The gas-permeable film is *impermeable to water vapor* and can comprise a microporous film that is uniaxially or biaxially oriented (col. 2, lines 1-2, 7-11, and 31-35). Therefore, one of ordinary skill in the art would never have substituted the gas-permeable microporous film for the middle layer B of Forte, because then the middle layer would not be permeable to water vapor, and Forte's main objective is to achieve high vapor permeability (i.e., what Forte refers to as "breathability"). It would have destroyed the desired breathability of Forte's film to make such a substitution.

For these reasons, Applicant respectively submits that even if Forte and Antoon, Jr. were combined as proposed in the Office Action, the combination still fails to teach or suggest the claimed invention. Accordingly, independent Claims 1, 10, and 14, and their dependent claims, are patentable over the cited references.

Conclusion

Based on the above amendments and remarks, Applicant respectfully submits that the application is in condition for allowance.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 9, 2005

Nancy McPartland

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